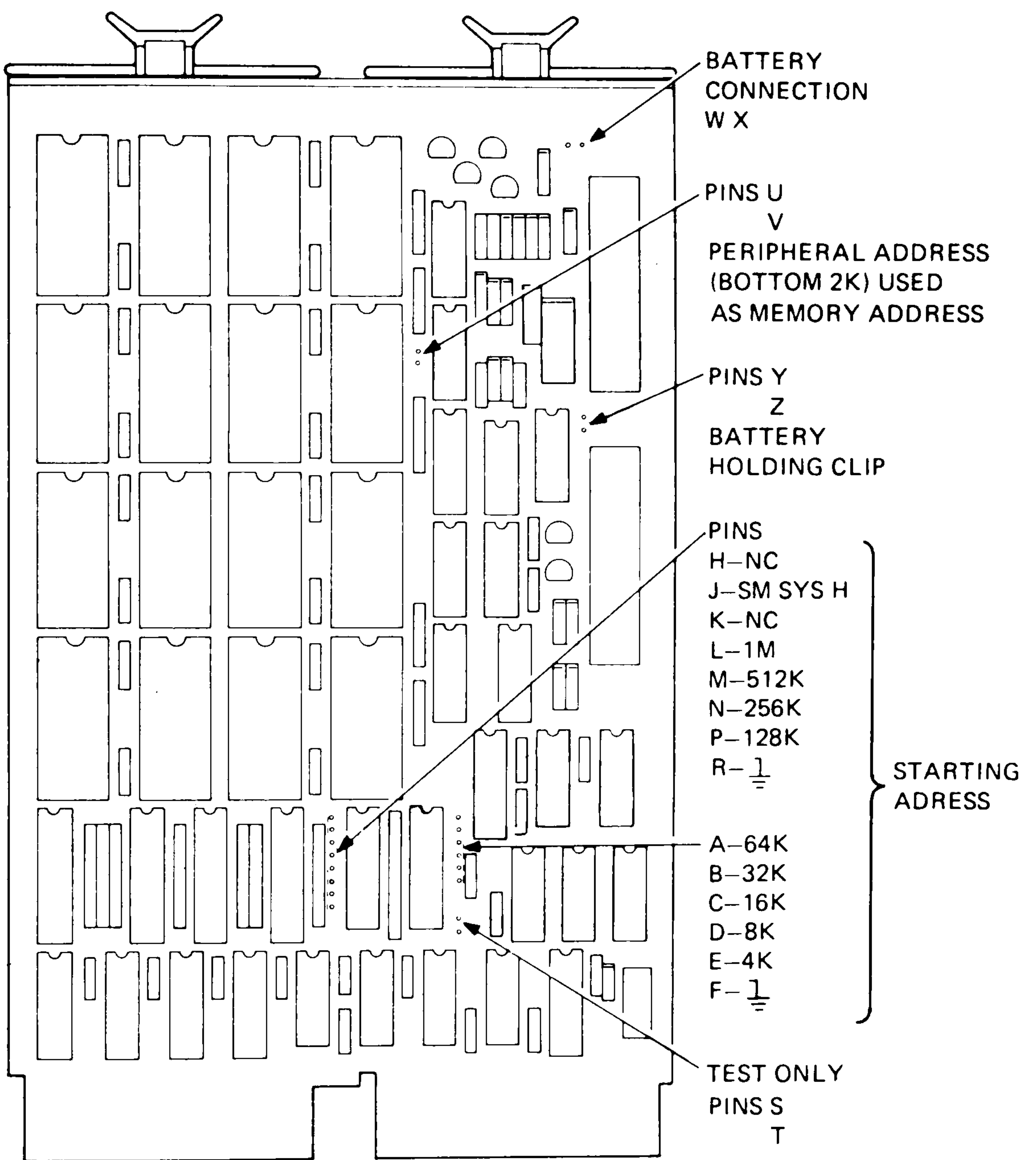


MCV11-D REFERENCE CARD



MA 9596A

MCV11-D Memory Module Jumpers

Starting Address Jumpers (Part 1)

First Starting Address Range (FAR)		Jumpers In (X) to Ground (R)			
Decimal (K)	Octal	L	M	N	P
000 - 124	00000000 - 00760000	-	-	-	-
128 - 252	01000000 - 01760000	-	-	-	X
256 - 380	02000000 - 02760000	-	-	X	-
384 - 508	03000000 - 03760000	-	-	X	X
512 - 636	04000000 - 04760000	-	X	-	-
640 - 764	05000000 - 05760000	-	X	-	X
768 - 892	06000000 - 06760000	-	X	X	-
896 - 1020	07000000 - 07760000	-	X	X	X
1024 - 1148	10000000 - 10760000	X	-	-	-
1152 - 1276	11000000 - 11760000	X	-	-	X
1280 - 1404	12000000 - 12760000	X	-	X	-
1408 - 1532	13000000 - 13760000	X	-	X	X
1536 - 1660	14000000 - 14760000	X	X	-	-
1664 - 1788	15000000 - 15760000	X	X	-	X
1792 - 1916	16000000 - 16760000	X	X	X	-
1920 - 2044	17000000 - 17760000	X	X	X	X

Starting Address Jumpers (Part 2)

Partial Starting Address (PSA)		Jumpers In (X) To Ground (F)				
Decimal (K)	Octal	A	B	C	D	E
0	00000000	-	-	-	-	-
4	00020000	-	-	-	-	X
8	00040000	-	-	-	X	-
12	00060000	-	-	-	X	X
16	00100000	-	-	X	-	-
20	00120000	-	-	X	-	X
24	00140000	-	-	X	X	-
28	00160000	-	-	X	X	X
32	00200000	-	X	-	-	-
36	00220000	-	X	-	-	X
40	00240000	-	X	-	X	-
44	00260000	-	X	-	X	X
48	00300000	-	X	X	-	-
52	00320000	-	X	X	-	X
56	00340000	-	X	X	X	-
60	00360000	-	X	X	X	X
64	00400000	X	-	-	-	-
68	00420000	X	-	-	-	X
72	00440000	X	-	-	X	-
76	00460000	X	-	-	X	X
80	00500000	X	-	X	-	-
84	00520000	X	-	X	-	X
88	00540000	X	-	X	X	-
92	00560000	X	-	X	X	X
96	00600000	X	X	-	-	-
100	00620000	X	X	-	-	X
104	00640000	X	X	-	X	-
108	00660000	X	X	-	X	X
112	00700000	X	X	X	-	-
116	00720000	X	X	X	-	-
120	00740000	X	X	X	X	-
124	00760000	X	X	X	X	X

NOTE: To obtain any starting address on 4K boundaries from 0 - 124K, wirewrap daisy chain fashion from pin F, which is grounded to each successive pin labeled with X for that address.

Read Starting Address Jumper (Example - 352K Words)

Names	Starting Address Range				Partial Starting Address Range						
Decimal K words binary address	1Meg	512K	256K	128K	64K	32K	16K	8K	4K		
BDAL values	21	20	19	18	17	16	15	14	13	12	
BDAL bits	0	0	1	0	1	1	0	0	0	X	
Jumper pin names	L	M	N	P	R	A	B	C	D	E	F
Jumper pins											

X = Don't care

Determining the MSA by Identifying the MSA Jumpers

Remove the module from the backplane and locate the MSA jumpers. List the MSA pins that are jumpered. Refer to Table 2-2 and mark an X under the pin names that have wirewraps on them. Add the binary weights associated with the jumper pin names that have an X. The result will be the MSA.

Table 2-2 shows jumper pin names N, A and C have Xs associated with the pins. Add the binary weights. The result is the memory module starting address (MSA).

Pins	Binary Weight
N	256K
A	64K
C	16K
<hr/>	
MSA = 336K	

System Selection Jumper

Small/large system selection is set by the condition of jumper pin J. Small systems use 16- or 18-bit addressing, with pin J unconnected. Large systems use 22-bit addressing, with pin J wrapped to pin R.

Manufacturing Test Jumper

This jumper, when installed (pin T to pin S), allows addresses to start at 128K. The jumper is installed during manufacturing test. When the modules leave manufacturing test, the jumper is removed.

Memory I/O Page Address Jumper

When a customer wants to use the bottom 2K of the I/O space as a memory address, jumper U to V.

Memory Module Battery Backup Jumper

When you receive an MCV11-D memory, there will be two 1.2 V rechargeable nicad batteries. Pins Y and Z are the clip carrier pins (no electronic function); they should have a clip across them. Remove the clip and connect it across pins W and X. This installs module battery backup.

Module Handling

A jumper clip is provided to connect the battery to the RAM array. With the jumper connecting pins W and X, the RAMs have voltage on their power pin (pin 24) even when the module is removed from the backplane. Use care in handling the module to prevent short circuits (that is, avoid metal surfaces such as tables, rings, or other modules when stacking). The best method of handling a board when the memory contents are of no concern is to disconnect the jumper clip from pins W and X; this takes voltage off the RAM array. Make sure the battery is not directly shorted in handling.

Battery Check

A battery (cell pair) with some capacity will have a terminal voltage greater than 2 V.

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